

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Transportation Laboratory

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**METHOD OF TEST FOR COEFFICIENT OF RETRO-REFLECTION OF  
RETRO-REFLECTIVE SHEETING FOR HIGHWAY SIGNS**

**CAUTION:** Prior to handling test materials, performing equipment setups, and/or conducting this method, testers are required to read "**SAFETY AND HEALTH**" in Section E of this method. It is the responsibility of the user of this method to consult and use departmental safety and health practices and determine the applicability of regulatory limitations before any testing is performed.

**A. SCOPE**

This method covers the procedure for measuring the coefficient of retro-reflection of retro-reflective sign sheeting.

**B. APPARATUS AND TEST PROCEDURE**

The apparatus and test procedure for this method shall conform to the requirements in ASTM Designation: E 810.

**C. PREPARATION OF SAMPLES**

The test is performed on retro-reflective sheeting applied to the intended sign-backing material. To obtain comparable test results, the sheeting must be free from letters, edgings, insignia, holes, and scratches. Remove foreign substances such as smudges or dust from the reflective sheeting.

**D. CALCULATIONS**

From the readings obtained, calculate the coefficient of retro-reflection for the retro-reflective sheeting according to ASTM Designation: E 810.

**E. SAFETY AND HEALTH**

Testers should always take extra care when working in the poorly lighted corridor or tunnel. This dark environment may cause serious accidents due to slips and falls.

Prior to handling, testing or disposing of any waste materials, testers are required to read the Caltrans Laboratory Safety Manual. Users of this method do so at their own risk.

**REFERENCE**

**ASTM Designation: E 810**  
**Caltrans Laboratory Safety Manual**

**End of Text**  
**(California Test 642 contains 1 page)**